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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,477	07/11/2003	Lotte Rugholm Henriksen	5683.210-US	5300

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EXAMINER	
NAFF, DAVID M	

ART UNIT	PAPER NUMBER
1651	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/618,477	HENRIKSEN ET AL.	
	Examiner	Art Unit	
	David M. Naff	1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *34-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *34-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

An amendment of 1/6/06 canceled claims 19-33 and added new claims 34-53.

Claims examined on the merits are 34-53, which are all claims in the application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 34-53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Support is not found in the specification for using corn steep liquor without the liquor providing a sufficient amount of lactic acid to stabilize the phytase as now claimed. Applicants should point out the page and lines of the specification that discloses using corn steep liquor without lactic acid being provided in a sufficient amount to stabilize the phytase.

Additionally, support is not found for the ranges of claims 50-53. The pages and lines where the ranges are recited in the specification should be pointed out.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 34-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are confusing and unclear by claim 34 in the last line not having clear antecedent basis for "the enzyme".

Claim Rejections - 35 USC § 103

Claims 34-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Lima et al (6,136,772) or Harz et al (5,972,669) or Lassen et al (6,060,298) in view of Linton et al (4,859,485) and Akhtar (5,750,005).

The claims are drawn to a solid phytase composition comprising an enzyme having phytase activity of above 20 FYT/g of the composition, and corn steep liquor in an amount sufficient to stabilize the enzyme.

De Lima et al (Example 26-28), Harz et al (col 3, line 59 to col 4, line 46) and Lassen et al (col 13, line 57 to col 15, line 41)

disclose compositions containing phytase for use as an animal feed additive.

Linton et al disclose an animal feed supplement containing a mixture of corn bran and corn steep liquor. The corn steep liquor is an economical source of protein in animal feed (col 1, lines 35-68, and col 4, lines 3-17). The mixture is compacted to form a moist, cohesive, friable, readily transportable mass.

Akhtar discloses that corn steep liquor is used as a supplement and nutrient source for ruminants and poultry, and that the liquor on a dry basis contains 16% lactic acid (col 6, lines 32-44).

It would have been obvious to add corn steep liquor to the phytase-containing feed additive composition of De Lima et al or Harz et al or Lassen et al to obtain the function of the corn steep liquor as a nutrient source in feed as disclosed by Linton et al and Akhtar. Corn steep liquor contains lactic acid as disclosed by Akhtar, and corn steep liquor would have inherently been a source of lactic acid, and stabilize the phytase. Providing an amount of corn steep liquor as suggested by Linton et al and Akhtar would have resulted in 0.01-15% as claimed. Moreover, using a preferred amount of lactic acid source would have been a matter of individual preference within the skill of the art. Adding sufficient phytase to provide an activity of at least 20 FYT/g would have been a matter of individual preference for a certain phytase activity, and obtaining this activity would have simply required adding a sufficient amount of phytase to provide the activity. This also applies to activities required by claims 43-53.

Corn steep liquor would have provided the additional components of dependent claims. If not provided by corn steep liquor, such components in an animal feed additive are conventional, and their addition would have been obvious. Adding the corn steep liquor in dry form to the phytase composition would have been obvious to provide a composition that is stable during storage and has less bulk for transportation. The present claims do not exclude a moist solid as disclosed by De Lima et al. Moreover, it would have been obvious to further dry the composition to obtain greater storage stability and less bulk for transportation.

Response to Arguments

Applicants urge that a reference does not teach or suggest an animal feed composition containing corn steep liquor as claimed. However, Linton et al and Akhtar suggest using corn steep liquor in a feed supplement, and its addition to the phytase feed additive of De Lima et al or Harz et al or Lassen et al would have been obvious to provide the corn steep liquor in feed to which the additive is added. The references are combined together, and must be considered together as a whole.

Claim Rejections - 35 USC § 103

Claims 34-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linton et al in view of De Lima et al or Harz et al or Lassen et al and Akhtar.

The invention and the references are described above.

It would have been obvious to add phytase to the feed supplement composition of Linton et al containing corn steep liquor to obtain the function of phytase as a feed additive as suggested by De Lima et al or Harz et al or Lassen et al. Corn steep liquor would have inherently been a source of lactic acid as is apparent from Akhtar, and would have inherently stabilized the phytase. An amount of corn steep liquor in a range of 0.01-15% would have been obvious from the amount provided as Linton et al. Additionally, adding a preferred amount would have been a matter of individual preference within the skill of the art. Adding sufficient phytase to provide an activity of at least 20 FYT/g would have been a matter of individual preference for a certain phytase activity, and obtaining this activity would have simply required adding a sufficient amount of phytase to provide the activity. This also applies to activities required by claims 43-53. Corn steep liquor would have provided the additional components of dependent claims. If not provided by corn steep liquor, such components in an animal feed additive are conventional, and their addition would have been obvious. The present claims do not exclude a moist solid as disclosed by De Lima et al. Moreover, it would have been obvious to further dry the composition to obtain greater storage stability and less bulk for transportation.

Response to Arguments

This rejection has not been separately traversed.

Double Patenting

Claims 34-53 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,610,519 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the presently claimed composition containing a phytase enzyme and a lactic acid source would have been obvious from the same type of composition of the patent claims that the present claims encompass.

Response to Arguments

Applicants state that a terminal disclaimer will be filed when allowable subject matter is indicated.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is 571-272-0920. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David M. Naff
Primary Examiner
Art Unit 1651

DMN
4/1/06